A785GM-LE/128M

AMD 785G + SB710 Chipsets

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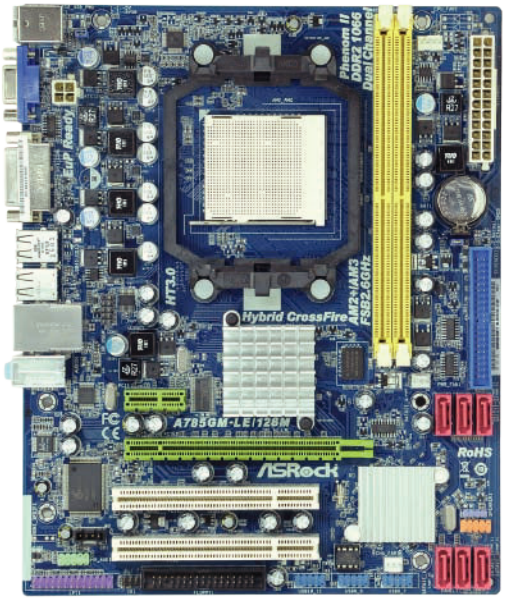

Product Brief

- Supports AMD OverDrive™ with ACC feature (Advanced Clock Calibration)
- Integrated AMD Radeon HD 4200 graphics, DX10.1 class iGPU, Shader Model 4.1, Max. shared memory 512MB
- Supports ATI™ Hybrid CrossFireX™, Built-in 128MB SidePort Memory
- Dual VGA Output: D-Sub, DVI-D
- EuP Ready
- Supports ASRock Instant Boot, Instant Flash, Smart BIOS, ASRock OC Tuner, Intelligent Energy Saver, OC DNA

The specification is subject to change without notice. The brand and product names are trademarks of their respective companies. Any configuration other than original product specification is not guaranteed.

Detail Specification

Platform	- Micro ATX Form Factor: 9.6-in x 7.8-in, 24.4 cm x 19.8 cm
CPU	- Support for Socket AM2+ / AM2 processors: AMD Phenom™ FX / Phenom / Athlon 64 FX / Athlon 64 X2 Dual-Core / Athlon X2 Dual-Core / Athlon 64 / Sempron processor - Support for AM3 processors: AMD Phenom™ II X4 / X3 / X2 and Athlon II X4 / X3 / X2 processors - Supports AMD OverDrive™ with ACC feature (Advanced Clock Calibration) - Supports AMD's Cool 'n' Quiet Technology - FSB 2600 MHz (5.2 GT/s) - Supports Untied Overclocking Technology - Supports Hyper-Transport 3.0 (HT 3.0) Technology
Chipset	- Northbridge: AMD 785G - Southbridge: AMD SB710
Memory	- Dual Channel DDR2 memory technology - 2 x DDR2 DIMM slots - Supports DDR2 1066/800/667/533 non-ECC, un-buffered memory - Max. capacity of system memory: 8GB
Expansion Slot	- 1 x PCI Express 2.0 x16 slot (green @ x16 mode) - 1 x PCI Express 2.0 x1 slot - 2 x PCI slots - Supports ATI™ Hybrid CrossFireX™
Graphics	- Integrated AMD Radeon HD 4200 graphics - DX10.1 class iGPU, Shader Model 4.1 - Max. shared memory 512MB - Integrated 128MB side port memory for iGPU - Dual VGA Output: support DVI-D and D-Sub ports by independent display controllers - Supports HDCP function with DVI-D port - Supports Full HD 1080p Blu-ray (BD) / HD-DVD playback
Audio	- 5.1 CH Windows® Vista™ Premium Level HD Audio (ALC662 Audio Codec)
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111DL - Supports Wake-On-LAN
Rear Panel I/O	I/O Panel - 1 x PS/2 Mouse Port - 1 x PS/2 Keyboard Port - 1 x VGA/D-Sub Port - 1 x VGA/DVI-D Port - 6 x Ready-to-Use USB 2.0 Ports - 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED) - HD Audio Jack: Line in / Front Speaker / Microphone
Connector	- 6 x Serial ATAII 3.0 Gb/s connectors, support RAID (RAID 0, RAID 1, RAID 10 and JBOD), NCQ, AHCI and "Hot Plug" functions - 1 x ATA133 IDE connector (supports 2 x IDE devices) - 1 x Floppy connector - 1 x IR header - 1 x Print port header - 1 x COM port header - CPU/Chassis/Power FAN connector - 24 pin ATX Power connector - 4 pin 12V power connector - CD in header - Front panel audio connector - 3 x USB 2.0 headers (support 6 USB 2.0 ports)
BIOS Feature	- 8Mb AMI BIOS - AMI Legal BIOS - Supports "Plug and Play" - ACPI 1.1 Compliance Wake Up Events - Supports jumperfree - SMBIOS 2.3.1 Support - VCCM, NB Voltage Multi-adjustment - Supports Smart BIOS
Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), AMD OverDrive™ Utility, AMD Live! Explorer

Unique Feature	- ASRock OC Tuner
	- Intelligent Energy Saver
	- Instant Boot
	- ASRock Instant Flash
	- ASRock OC DNA
	- Hybrid Booster:
	  - CPU Frequency Stepless Control
	  - ASRock U-COP
	  - Boot Failure Guard (B.F.G.)
	  - ASRock AM2 Boost: ASRock Patented Technology to boost memory performance up to 12.5%

Hardware Monitor	- CPU Temperature Sensing - Chassis Temperature Sensing - CPU/Chassis/Power Fan Tachometer - CPU Quiet Fan - Voltage Monitoring: +12V, +5V, +3.3V, Vcore
OS	- Microsoft® Windows® XP / XP Media Center / XP 64-bit / Vista™ / Vista™ 64-bit / Win7 compliant
Certifications	- FCC, CE, WHQL - EuP Ready (EuP ready power supply is required)
Accessories	- Quick Installation Guide, Support CD, I/O Shield - ATA 133 cable - 1 x SATA data cable (optional)

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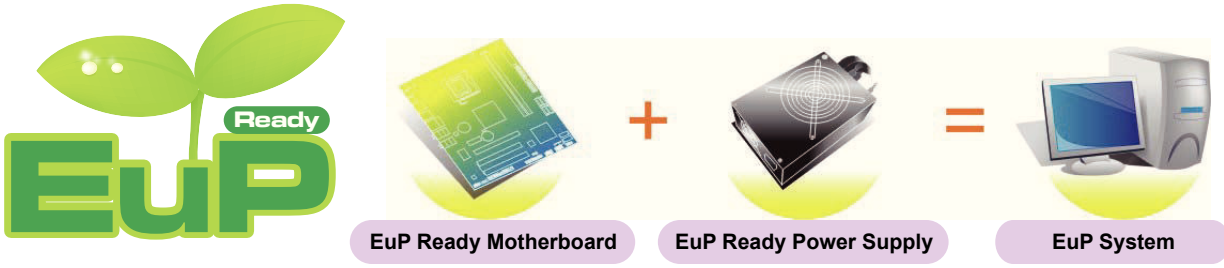

What is EuP?

EuP, stands for Energy Using Product, was a provision regulated by European Union to define the power consumption for the completed system. With the great quantity and the popularly using of the electrical products nowadays and the continuously increasing of the electrical products categories in the following 20 to 30 years, European Union decided to establish an effective strategy to solve the energy consumption problem. That is, according to EuP, the total AC power of the completed system shall be under 1.00W in off mode condition.

How to setup an EuP system?

To meet EuP standard, the EuP ready motherboard and the EuP ready power supply are required. As a motherboard vendor with eco-awareness, ASRock is the pioneer to develop “EuP Ready” motherboards based on the great efforts of our exceptional hardware design.
According to Intel, the EuP ready power supply must meet the standard of 5v standby power efficiency is higher than 50% under 100 mA current consumption. For EuP ready power supply selection, please check with the power supply manufacturer for more details.

ASRock, Worldwide First EuP Ready Motherboard Manufacturer!

ASRock hereby proudly announced that we are the Worldwide First motherboard manufacturer to release “EuP Ready” motherboard to the market! With ASRock “EuP Ready” motherboard, you are confident to setup a system to pass the EuP standard.

ATI Radeon® HD4200

DirectX 10.1 Onboard Graphics

Key features of DirectX 10.1 include an updated shader model, improved anti-aliasing support, more flexible data access, and tighter specifications for better applicationcompatibility.

DirectX 10.1 Anti-Aliasing

DirectX 10 –Standard MSAA:Foliage edges do not get anti-aliased –causes shimmering and crawling when they move

DirectX 10.1 –Alpha Test MSAA:Foliage edges are smoothed and anti-aliased –offers significant image quality improvement

Features	DirectX® 10	DirectX® 10.1
Shader Model	4	4.1
Separate per-MRT blend modes	No	Yes
Pixel Coverage Masks	No	Yes
Sample Pattern Selection	No	Yes
Cube Map Arrays	No	Yes
Gather4	No	Yes
VS Inputs	16	32
Blending	INT8, FP16/32	INT8/16, FP16/32
Filtering	FP16	FP32

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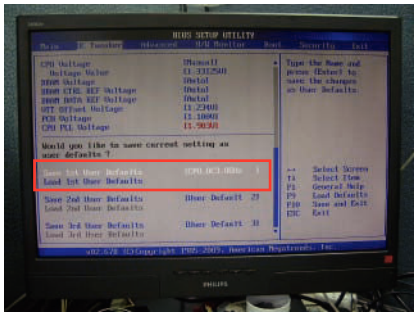
OC DNA

Save your OC settings as a profile and share with friends. Try OC DNA now!

OC DNA Instruction

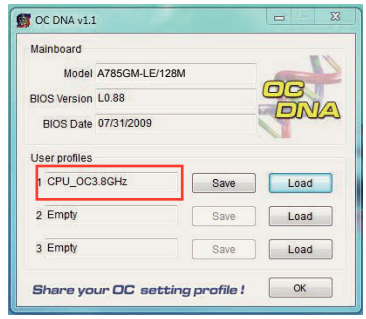
Step 1

Save your BIOS OC settings as User Default in BIOS OC Tweaker menu. (For example: we name this User Default setting as “CPU_OC3.8GHz”)



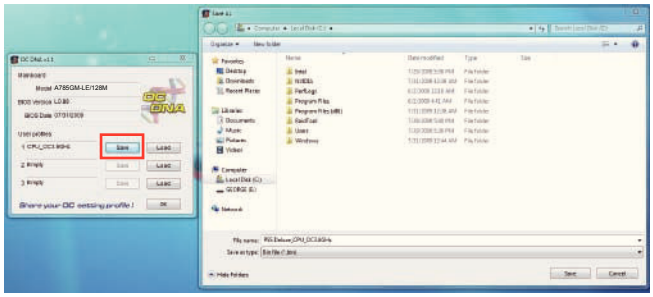
Step 2

Execute ASRock OC DNA under OS, you will find “CPU_OC3.8GHz” as User Profile 1.



Step 3

Press “Save” button to save the “CPU_OC3.8GHz” OC settings as a profile.

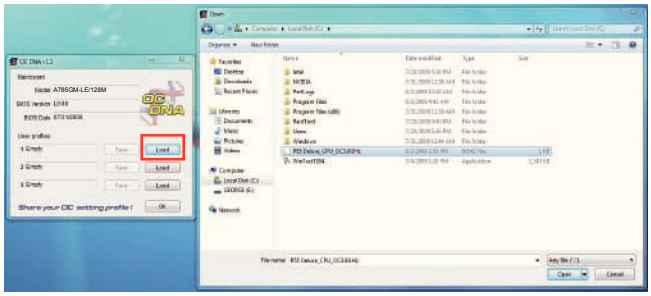


Step 4

Send the “CPU_OC3.8GHz” profile to other friends.

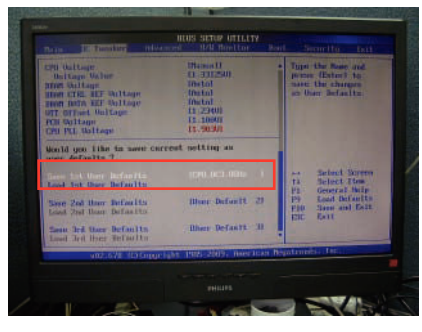
Step 5

When the friend receives your “CPU_OC3.8GHz” profile, he can press “Load” to load the “CPU_OC3.8GHz” profile in OC DNA.



Step 6

After that, the friend can enter into BIOS OC Tweaker menu to load the “CPU_OC3.8GHz” profile as his BIOS OC settings.



Now, you have successfully share your OC setting profile with your friends.

*The OC DNA works only when users use the same motherboard and BIOS version.

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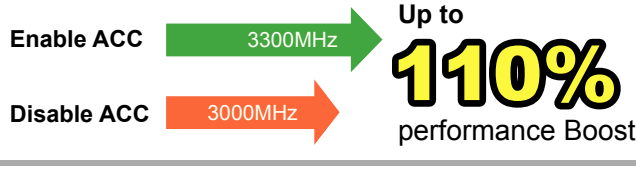
AMD OverDrive™ with ACC feature (Advanced Clock Calibration)

CPU Frequency



Configuration:
CPU : Phenom X3 8750 (200 x 12 =2400 Mhz)
Memory : OCZ DDR2-1200
BIOS : L0.03

Enable AOD ACC, Upgrade your CPU cores and L3 cache now!

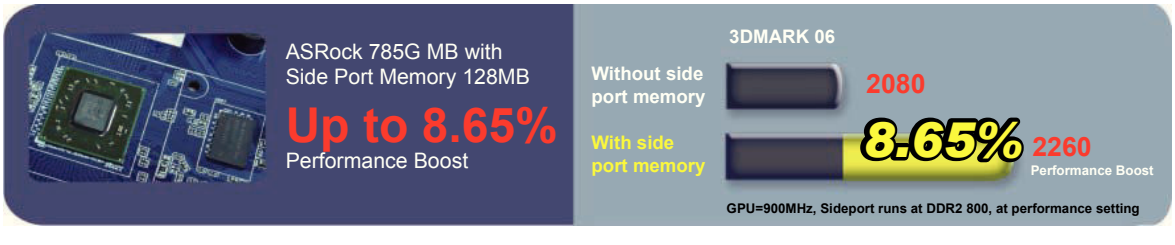
- With AMD Sempron 140 CPU
  Single core → Dual core
- With AMD Phenom II X2 550 BE CPU
  X2 cores → X4 cores
- With AMD Phenom II X3 710 / 720 BE CPU
  X3 cores → X4 cores
- With AMD Phenom II 805 / 810 CPU
  L3 cache 4MB → 6MB

*The success rate of this enhancement depends on the individual CPU.

Side port memory 128MB:

Boost performance up to 8.65% which is rarely seen on other 785G boards

side port memroy 128MB



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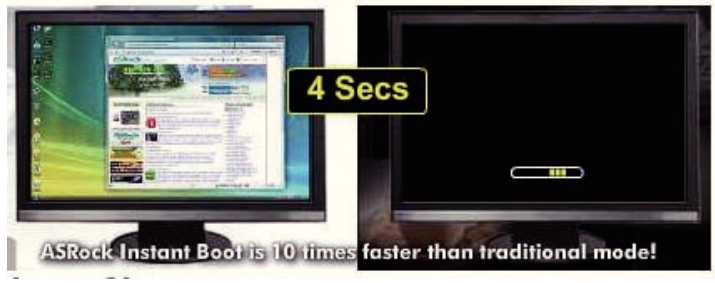
ASRock Instant Boot

ASRock Instant Boot is a new feature invented exclusively by ASRock. It can boot up system in an amazing speed, which is 10 times faster than traditional boot up. For home users or office PC users, ASRock Instant Boot can also guarantee a clean Windows OS, and consumed less power! For details:
http://www.asrock.com/feature/InstantBoot/index.asp

* This function is applicable ONLY to single user that does not secure ID and Password to their systems.
* The boot up time depends on the hardware configuration.

10 Times Faster, Only 4 Secs to Boot Up to Windows!

ASRock YouTube
http://tw.youtube.com/watch?v=BucljXZVxXo



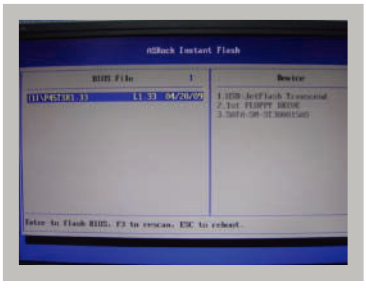
ASRock Instant Flash

ASRock Instant Flash is an exclusive and the most user-friendly BIOS flash utility developed by ASRock. It is embedded in Flash ROM which is used to update the system BIOS without having to enter operating systems like MS-DOS or Windows.

Instant Flash
BIOS
Instant Flash BIOS Utility

Features

Once executing ASRock Instant Flash, the utility will automatically detect all devices such as USB, hard disk or even floppy drive to find the exact BIOS for your system. Instead of giving you all BIOS in your devices, the Instant Flash just list BIOS versions that apply to your motherboard model only. For example, if you have many different BIOS of different motherboards saved in your devices, but you just need to flash your P45 motherboard, the Instant Flash will just list the P45 BIOS versions for you. This unique function allows you to easily select the suitable BIOS version instead of browsing through all data.



Instant Flash just list BIOS versions that apply to your motherboard model.

Simple!

Click and start Flashing!

Quick!